

CLAIMS

1. An acrylic rubber composition comprising:

(A) 100 parts by weight of an acrylic rubber comprising 80 to 99.9% by weight of units of at least one kind of monomer selected from the group consisting of acrylic acid ester monomers and methacrylic acid ester monomers, and 0.1 to 20% by weight of units of an α,β -ethylenically unsaturated carboxylic acid monomer,

(B) 5 to 200 parts by weight of synthetic silica, and

(C) 0.05 to 20 parts by weight of a crosslinking agent.

2. The acrylic rubber composition according to claim 1, wherein the units of acrylic acid ester monomers comprises 30 to 100% by weight of units of at least one kind of a monomer selected from the group consisting of ester monomers of acrylic acid with an alkanol having 1 to 8 carbon atoms and 0 to 70% by weight of units of at least one kind of a monomer selected from the group consisting of ester monomers of acrylic acid with an alkoxyalkyl alcohol having 2 to 8 carbon atoms; and the units of methacrylic acid ester monomers comprises 30 to 100% by weight of units of at least one kind of a monomer selected from the group consisting of ester monomers of methacrylic acid with an alkanol having 1 to 8 carbon atoms and 0 to 70% by weight of units of at least one kind of a monomer selected from the group consisting of ester monomers of methacrylic acid with an alkoxyalkyl alcohol having 2 to 8 carbon atoms.

3. The acrylic rubber composition according to claim 1 or 2, wherein the α,β -ethylenically unsaturated carboxylic acid monomer is a monomer selected from the group consisting α,β -ethylenically unsaturated monocarboxylic acids having 3 to 12 carbon atoms, α,β -ethylenically unsaturated dicarboxylic acids having 4 to 12 carbon atoms and anhydrides thereof, and monoesters of an α,β -ethylenically unsaturated dicarboxylic acid having 3 to 11 carbon atoms with an alkanol having 1 to 8 carbon atoms.

4. The acrylic rubber composition according to any one of claim 1 to 3, wherein the synthetic silica has an average

particle diameter in the range of 7 to 70 nm and a BET specific surface area of not larger than 200 m²/g.

5. The acrylic rubber composition according to any one of claim 1 to 3, wherein the synthetic silica has a pH value of not larger than 9.

6. The acrylic rubber composition according to claim 1 or 2, wherein the synthetic silica is a calcined silica product prepared by heating wet process silica.

7. The acrylic rubber composition according to claim 6, wherein the calcined silica product is prepared by heating process silica at a temperature in the range of 500 to 1,000°C for 30 to 120 minutes.

8. The acrylic rubber composition according to claim 6 or 7, wherein the calcined silica product has not more than three silanol groups/nm² on the surface thereof.

9. The acrylic rubber composition according to any one of claims 6 to 8, wherein the calcined silica has an average particle diameter in the range of 1 to 10 μm and a BET specific surface area in the range of 20 to 200 m²/g.

10. The acrylic rubber composition according to any one of claims 6 to 9, wherein the calcined silica product exhibits a loss on heating of not larger than 2% by weight.

11. The acrylic rubber composition according to any one of claims 6 to 10, wherein the calcined silica product has a pH value of not more than 9.

12. The acrylic rubber composition according to any one of claims 1 to 11, which further comprises 5 to 200 parts by weight, based on 100 parts by weight of the acrylic rubber, of aluminum silicate containing at least 5% by weight of Al₂O₃ wherein the total amount of Al₂O₃ and SiO₂ is at least 60% by weight based on the aluminum silicate.

13. The acrylic rubber composition according to claim 12, wherein the ratio of the content of SiO₂ to the content of Al₂O₃ is in the range of 18/1 to 1/1 by weight.

14. The acrylic rubber composition according to any one of claims 1 to 13, wherein the crosslinking agent is a polyamine

compound.

15. The acrylic rubber composition according to claim 14, which further comprises 0.1 to 20 parts by weight, based on 100 parts by weight of the acrylic rubber, of a crosslinking accelerator having a base dissociation constant in the range of 10^{-12} to 10^6 as measured in water at a temperature of 25°C.

16. The acrylic rubber composition according to any one of claims 1 to 15, which further comprises 0.1 to 10 parts by weight, based on 100 parts by weight of the acrylic rubber, of a silane coupling agent.

17. A crosslinked object made by crosslinking the acrylic rubber composition as claimed in any one of claims 1 to 16.